Writing a Conclusion Paragraph

A conclusion paragraph is one of the most important parts of a lab report. The conclusion paragraph contains a description of the purpose of the experiment, a discussion of your major findings with a brief explanation, a statement about the acceptance of your hypothesis, a discussion of errors in your experiment, and recommendations for further study.

Address the following ideas using paragraph form. Be concise while answering the following questions and use transitions to connect the ideas.

1. Restate the purpose of the experiment (include independent (IV) and dependent (DV) variables.)

One format: The purpose of the experiment was to investigate the effect of the ____(IV)_____ on the _____(DV)_____

Example: The purpose of the experiment was to investigate the effect of nitrogen fertilizer concentration on the growth of corn plants by comparing the growth of corn plants subjected to varying concentrations of nitrogen based fertilizer.

2. What were the major findings? (Summarize your data and graph results)

Example: A significant difference existed between the height of fertilized plants and non-fertilized plants. Plants receiving 2% to 5% nitrogen fertilizer concentrations showed an increase in the average height by10% over plants with less than 2% and greater than 5% nitrogen fertilizer concentrations. The average height of the corn exposed to nitrogen fertilizer concentrations between 2% and 5% was 22 cm and the average height of the plants exposed to nitrogen fertilizer concentrations less than 2% and > 5% was 20 cm.

3. Was the hypothesis supported by the data?

One format: The hypothesis that (insert your hypothesis) was (supported, partially supported, or not supported.) Do not use the word "prove" – we do NOT prove hypotheses true in science.

Example: The hypothesis that nitrogenous fertilizer concentration has no effect on plant height was not supported.

4. What were your errors and how could this experiment be improved?

Example: This experiment was performed inside of a classroom where the temperature was not constant. Some plants were closer to the heat vent and may have been exposed to a different temperature than other plants. Perhaps this experiment could be improved by placing all plants equal distance from the heat vent. The experiment also relied on premixed fertilizer mixes. The mixes could have had incorrect concentrations. This experiment could be improved by testing the premade solutions to confirm the accuracy of the mix concentrations..

NOT acceptable: This experiment would have been better if we had done it correctly – we did sloppy work and made careless measurements.

NOT acceptable: This experiment would have been better if we had more time to do more trials.

5. What could be studied next? What new experiment could continue study of this topic?

Example: Additional investigations using additional concentrations would be a good additional experiment. Also, other crops could be subjected to the same experiment, such as beans and cucumbers. Perhaps scientists could use additional fertilizer mixes with different nutrients (e.g. phosphorous, potassium, etc).

Rubric for conclusion paragraphs in lab reports

Requirement:	**Points:**
Purpose restated	
Major findings stated, refers to graph or data table	
Revisits hypothesis (supported or not supported)	
Suggests improvements to lab procedure	
Suggests extension to lab	